

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

Applicant: Siaw-Kang Lai et al.
Application No.: 10/653,826
For: FAST ADD ROTATE ADD OPERATION
Filing Date: September 03, 2003
Examiner: Tan V. Mai
Art Unit: 2193

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Favorable reconsideration of the above-identified application is respectfully requested in view of the following amendments and remarks.

REMARKS

Claims 1-22 are pending. Applicant acknowledges with appreciation the allowance of claims 1-20. Reconsideration of the rejection of claims 21-22 is respectfully requested based on the following remarks.

I. REJECTION OF CLAIMS 21 and 22 UNDER 35 U.S.C. § 101

Claims 21 and 22 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Withdrawal of the rejection is respectfully requested for at least the following reasons.

In maintaining the rejection of claims 21-22 under Section 101, the Office Action of March 13, 2007, states that no information has been provided to show how the claims produce a useful, concrete and tangible result. More particularly, the Action states that while the claims appear to provide something concrete and tangible, the useful result is lacking.

Under the Section 101 Examination guidelines, a "useful result" is directed to satisfying the utility requirement, that requires utility to be (i) specific, (ii) substantial, and (iii) credible. MPEP § 2107 (II). Upon evaluation of the guidelines, there appears to be no requirement that the claim itself recite a useful result, but instead that ***the final result provided or achieved by the claims at issue be useful***. It is respectfully submitted that the final result provided by claims 21 and 22 is useful, in that the result is data constituting the result of data processing that may be employed in subsequent operations, for example, in security processing such as encryption or decryption.

More particularly, claim 21 recites *a method of performing a fast add rotate add operation using an add rotate adder*. The exemplary arrangement is discussed and described in the present invention, wherein the **useful, concrete and tangible result** of the method is provided in the preamble (***fast add rotate add operation***) and in the last method step which recites *performing a rotation operation (e.g., 1310 of Fig. 13) on the output result of the carry select propagating adder (e.g., 1314) according to the shift control signal (e.g., CS) and outputting the rotated result (e.g., OUT 1315) thereof*.

Clearly, the output of an add rotate add operation is a value that is useful as an output result, and/or as an input in further data operations. This result of the add rotate add operation is clearly (i) specific, (ii) substantial, and (iii) credible, and the Office Action has provided no detail or justification as to how or why the result does not meet the requirements of a "useful result."

In particular, the practical application of this **fast add rotate add outputted result** of the method of claim 21, when viewed in the context of the present invention, is described in the specification on page 50, line 30 thru page 51 line 2, for example, describing that during information (data) packet processing and destination address decoding, for example, it will be appreciated that the IPsec module 124, and more particularly the RX IPsec processor 150, EX IPsec processor 174a and TX IPsec processor 174b, may implement add, rotate, add (ARA) operations, such as in executing HMAC-MD5-95 algorithms, for example.

This practical application of this improved or **fast add rotate add outputted result** is further contrasted to a prior method in the specification on page 51, lines 24-27, for example, stating that the typical ARA function method requires the two summation steps to be performed separately, which can cause processing to take longer than desired, particularly when many calculation have to be performed, such as where large amounts of data are transmitted and/or received, for example.

By contrast to prior slower methods, the practical application of this **fast add rotate add outputted result** of the method of claim 21, in the context of Fig. 13, is also stated in the specification on page 51, line 30 thru page 52 line 2, for example, stating that of the ARA function: In particular, the arrangement (e.g., 1300 of Fig. 13) is operable to execute an ARA (such as that described above with respect to Fig. 12), but where multiple summation steps in a critical path are combined into a single operation, thus mitigating the computational time and resources necessary to complete the ARA operation. In this manner, at least one carry propagation (CPA) latency is saved in the ARA operation as compared to conventional systems. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 22 depends from independent claim 21 now believed to be in condition for allowance. Accordingly, withdrawal of the rejection is respectfully requested.

II. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Pre-appeal brief conference board feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 01-0365, AMDP758US.

Respectfully submitted,
ESCHWEILER & ASSOCIATES, LLC

/Thomas G. Eschweiler/
Thomas G. Eschweiler
Reg. No. 36,981

National City Bank Building
629 Euclid Avenue, Suite 1000
Cleveland, Ohio 44114
(216) 502-0600